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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,750	04/30/2001	Louis Arquie	K35A0767	4477

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EXAMINER	
NGUYEN, LE V	

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/846,750	ARQUIE ET AL.	
	Examiner	Art Unit	
	Le Nguyen	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 12-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 12-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to an amendment filed 5/2/06.

2. Claims 1-9 and 12-38 are pending in this application. Claims 1, 8, 20, 25, 30 and 31 are independent claims. Claim 39 has been added; claim 35 has been amended; and, claims 10 and 11 have been canceled. This action is made Final.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 1-4, 7-9, 14, 15, 18-21, 30-32, 35, 37, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu").

As per claim 1, Walker teaches a computer-implemented method of displaying device port information in a network topology display, comprising: (a) displaying a device node in a network topology display, the displayed device node representing a connection device in a network, the connection device having one or more connection ports for connecting to one or more devices in the network (figs. 4-5; *displayed are nodes wherein in networking nodes are devices connected to the network*); (b) displaying one or more connection paths coupled to the displayed device node, the connection paths representing connections to the one or more ports of the connection device (figs. 4-5; *port information displayed such as port number ("Port 1") and port type (of duplex type)*); and (c) selectively expanding the displayed device node in response

to a user selection, wherein the expanded node includes port information for each of the one or more ports having a connection to another device in the network corresponding to the connection paths (figs. 4-5; col. 4, lines 30-64; col. 5, lines 11-29; col. 8, line 19 through col. 9, line 33). Walker does not explicitly disclose expanding the displayed device node in response to a user selection of the device node. Nulu teaches a computer-implemented method of displaying device port information in a hardware topology display, comprising expanding the displayed device node in response to a user selection of the device node corresponding to the connection paths (col. 6, lines 46-52). Therefore, it would have been obvious to an artisan at the time of the invention to include Nulu's teaching of expanding the displayed device node in response to a user selection of the device node in a computer-implemented method of displaying device port information in a tree view of hardware connections which include port information to Walker's teaching of expanding the displayed device node in response to a user selection in a computer-implemented method of displaying device port information in a tree view of device connections which include virtual port information in order to provide users with architectural perspectives that are rapidly obtainable.

As per claim 2, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed device node represents a connection device selected from the group consisting of a switch, a hub and a router (Walker: figs. 1, 4 and 5; col. 3, line 47 through col. 4, line 28; col. 4, lines 56-64; col. 5, lines 11-39).

As per claim 3, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information includes the port number (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *Port 1*).

As per claim 4, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information includes a port connection type indicator (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *of duplex type*).

As per claim 7, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed device node represents the connection device and one or more devices connected to the connection device (Walker: figs. 4-5 *and respective portions of the specification*).

Claim 8 is similar in scope to the combination of claims 3 and 4 and is therefore rejected under similar rationale.

Claims 9 and 21 are individually similar in scope to claim 2 and are therefore rejected under similar rationale.

Claim 14 is similar in scope to claim 7 and is therefore rejected under similar rationale.

As per claim 15, Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the user selection includes selecting the displayed device node with a user input device (col. 3, lines 60-61; col. 4, lines 42-47; col. 5, lines 23-25).

As per claim 18, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display comprising removing the displayed port information from the display in response to a user selection to remove port information (Walker: figs. 1, 4 and 5; col. 3, line 47 through col. 4, line 28; col. 4, lines 56-64; col. 5, lines 11-39; *port information is displayed only as long as users' pointers rest on the graphical representation*).

As per claim 19, Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed device node represents the connection device and one or more devices connected to the connection device (figs. 1, 4 and 5).

Claim 20 is similar in scope to the combination of claims 3 and 4 and is therefore rejected under similar rationale except for the claimed feature of an indication of the ports having no connection, which is inherent given that the topology displays devices and their port connections so that not displaying a port with the device would be an indication that the device has no port connection.

Claims 30 and 31 are individually similar in scope to claim 1 and are therefore rejected under similar rationale.

As per claim 32, the modified Walker teaches a computer-readable medium having computer-executable instructions for performing a computer process, the computer process comprising detecting another user input event associated with the network topology display and modifying the network topology display to collapse the expanded displayed device node in the network topology display responsive to the

operation of detecting another user input event, the collapsed displayed device node omitting display of the port information indicators (Walker: figs. 4-5; col. 4, lines 30-64; col. 5, lines 11-29; col. 8, line 19 through col. 9, line 33).

As per claim 35, the modified Walker teaches a computer-readable medium having computer-executable instructions for performing a computer process, the computer process wherein the expanded displayed device node displays port information indicators for connection ports of the connection device having communicative connections to one or more other devices in the network and does not display port information indicators for connection ports of the connection device not having communicative connections to one or more other devices in the network (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *Port 1*).

As per claim 37, the modified Walker teaches a computer-readable medium having computer-executable instructions for performing a computer process, the computer process wherein at least one port information indicator displays a port connection type indicator (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *of duplex type*).

As per claim 38, the modified Walker teaches a computer-readable medium having computer-executable instructions for performing a computer process, the computer process wherein at least one port information indicator displays a port number indicator (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *Port 1*).

As per claim 39, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the

connection device comprises a plurality of connection ports for connecting to one or more devices in the network (Walker: figs. 4-5; *plurality of connection ports such as "Port 1" and "Port 12" connected to their respective devices*; Nulu: fig. 3; *displayed is an expanded ports view within a device*).

5. Claims 5, 6, 12, 13, 23-26, 28, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") as applied to claims 1, 8 and 20, and further in view of Dev et al. ("Dev").

As per claim 5, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein selectively expanding includes displaying the port information proximal the connection bar one or more ports having a connection (Walker: figs. 4 and 5; Nulu: col. 6, lines 46-52), the modified Walker does not explicitly disclose displaying the port information proximal the connection bar for each of the one or more ports having a connection. Dev teaches a computer-implemented method of displaying device port information in a network topology display wherein selectively expanding includes displaying a connection bar and displaying the port information proximal the connection bar for each of the one or more ports having a connection (figs. 7A-8B; col. 5, line 41 through col. 6, line 19; col. 13, line 30 through col. 14 line 25). Therefore, it would have been obvious to an artisan at the time of the invention to include Dev's method of displaying device port information in a network topology display wherein selectively expanding includes displaying a connection bar to the modified Walker's method of displaying device port information in a network topology display wherein selectively expanding includes

displaying the port information proximal the connection bar for each of the one or more ports having a connection in order to provide users with a method of traversing between location and topological views to obtain any necessary information regarding the configuration of the network all at once.

As per claim 6, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed port information for each port is displayed proximal the connection bar in a location indicating the relative location of the corresponding connected device in the network topology display (Dev: figs. 7A-8B).

Claims 12, 23 and 34 are individually similar in scope to claim 5 and are therefore rejected under similar rationale.

Claims 13, 24 and 33 are individually similar in scope to claim 6 and are therefore rejected under similar rationale.

Claim 25 is similar in scope to claim 13, which is similar in scope to claim 6, and is therefore rejected under similar rationale.

As per claim 26, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information corresponding to the portion of the connection ports is displayed within the expanded view at elevations corresponding to elevations in the network topology display of the other devices connected to the device node (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; Dev: figs. 7A-8B; col. 13, line 30 through col. 14 line 25; col.

5, line 41 through col. 6, line 19; Nulu: col. 6, lines 46-52; *selective locating of port information and the use of elevations*).

As per claim 28, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information is selected from the group of port information consisting of port type, and port state (Walker: figs. 4 and 5; *displayed port information such as port number, port type and port state, i.e. connected Port 1 of duplex type*).

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") as applied to claim 8, and further in view of Dev et al. ("Dev").

As per claim 16, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the user selection includes selecting a show ports option by clicking on icons (Walker: figs. 1, 4 and 5; col. 3, line 47 through col. 4, line 28; col. 4, lines 56-64; col. 5, lines 11-39), Walker does not explicitly disclose the user selection to include selecting a show ports option from a menu of options. Dev teaches a computer-implemented method of displaying device port information in a network topology display wherein the user selection includes both selecting a show ports option by clicking on icons *and* selecting a show ports option from a menu of options (col. 14, lines 9-13). Therefore, it would have been obvious to an artisan at the time of the invention to include Dev's method of selecting a show ports option from a menu of options in a computer-implemented method of displaying device port information in a network topology display with the

modified Walker's method of displaying device port information in a network topology display wherein the user selection includes both selecting a show ports option by clicking on icons in a computer-implemented method of displaying device port information in a network topology display in order to provide an additional method of selection that is common to window based displays.

As per claim 17, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display comprising displaying the menu of options in response to a user selection of the displayed device node (Dev: col. 13, line 30 through col. 14, line 13).

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") as applied to claim 20.

As per claim 22, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the network is a LAN, the modified Walker does not explicitly disclose a computer-implemented method of displaying device port information in a network topology display wherein the network is a SAN. Official Notice is taken that SAN is well known in the art. Therefore, it would have been obvious to an artisan at the time of the invention to include a SAN to the modified Walker's LAN in order to provide the scalability, speed and manageability required in environments that demand high data availability.

8. Claims 27 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") and Dev et al. ("Dev") as applied to claim 20, and further in view of Simpson.

As per claim 27, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the expanded view comprises port information for the connection ports of the device node that are connected to devices in the network and not displaying ports not connected to devices in the network, the modified Walker does not explicitly disclose displaying ports that are not connected to the other devices in the network. Simpson teaches displaying ports that are connected as well as ports that are not connected to other devices in the network (col. 10, line 54 through col. 11, line 10). Therefore, it would have been obvious to an artisan at the time of the invention to include Simpson's teaching of displaying ports that are connected as well as ports that are not connected to other devices in the network to the modified Walker's teaching of displaying ports that are connected to devices in the network so that users may recognize ports that are available for communication.

Claim 36 is similar in scope to claim 27 and is therefore rejected under similar rationale.

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") and Dev et al. ("Dev") as applied to claim 28, and further in view of Bare.

As per claim 29, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display comprising receiving a user-input request for port information and displaying a subset of a group of port information (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; Dev: figs. 7A-

8B; col. 13, line 30 through col. 14 line 25; col. 5, line 41 through col. 6, line 19; Nulu: col. 6, lines 46-52), the modified Walker does not explicitly disclose the user-input to be a configuration request defining a subset of the group of port information to be included in the displayed port information and wherein the displayed port information is configured to comprise the subset. Bare teaches a user-input to be a configuration request defining a subset of the group of port information to be included in the displayed port information and wherein the displayed port information is configured to comprise the subset (col. 2, lines 44-51). Therefore, it would have been obvious to an artisan at the time of the invention to include Bare's teaching of a user-input to be a configuration request defining a subset of the group of port information to be included in the displayed port information and wherein the displayed port information is configured to comprise the subset to the modified Walker's teaching of a user-input request for port information and displaying a subset of a group of port information in order to prevent loss of connectivity in scenarios that include multiple load balance domains.

Response to Arguments

10. Applicant's arguments filed 5/2/06 have been fully considered but they are not persuasive.

Applicant argued:

(a) Walker discloses port information shown in association with a link, not for a device. Moreover, only port information for a single port of the device is ever shown at the same time.

(b) Using the system of Nulu, a user may configure individual resources within the piece of hardware but cannot view the network topology.

(c) There is no suggestion or motivation to combine the teachings of Walker and Nulu.

(d) Walker fails to teach the "selectively expanding" in light of the "displaying" operation. Specifically, Walker fails to disclose or suggest both expanding a displayed device node in a network topology display as well as displaying an expanded node that includes port information for *each of the one or more* ports having a connection to another device in the network wherein the display include port information for both connected and unconnected ports.

(e) Claim 25 has distinctly different claim elements to claims 1 and 13.

The examiner disagrees for the following reasons:

Per (a), the modified Walker teaches tool tips having port information pertaining to the associated network device (Walker: col. 5, lines 19-21). Furthermore, the claim language does not require that all ports having a connection being displayed simultaneously. If by "the expanded node includes port information for each of the one or more ports having a connection to another device in the network" applicant meant that the expanded node includes port information for each of the one or more ports having a connection to another device in the network *wherein all ports having a connection is being displayed simultaneously*, applicant is invited to amend the claim language to include the italicized limitation.

Per (b) and in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Walker teaches a network topology view wherein the tree/topology is a topology of hardware resources connected over a network (Abstract; figs. 4-5). The teaching extracted from Nulu is for the feature of traditional expanding of nodes in a hardware tree/topology wherein the topology is a topology of hardware resources and wherein topology is a study of the physical or natural features of an object or entity and their structural relationship (fig. 2).

Per (c) and in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation to combine is found both in reference itself and in the knowledge generally available to one of ordinary skill in the art, i.e. to provide users with "architectural perspectives" (Nulu: fig. 2a *and respective portions of the specification*) and a perspective of the architectural layout of a network formed by the connection between devices via a network topology as known by one of ordinary skills in the art.

Per (d), the modified Walker teaches displaying additional information upon "selectively expanding" a node in a network topology display (Walker: figs. 4-5; col. 4, lines 30-64; col. 5, lines 11-29; col. 8, line 19 through col. 9, line 33). Moreover, the modified Walker teaches displaying the expanded node including port information for one or more ports having a connection to another device in the network (Walker: figs. 4-5; *port information such as "Port 1" and "Port 12" of the respective network device is displayed*) wherein the display include port information for both connected and unconnected ports (*inherent since port information are not displayed for ports that do not exist and/or not connected*).

Per (e), claim 25(a) is similar in scope to claim 1(a), claim 25(b) is similar in scope to claim 1(b) and claim 25(c) is similar in scope to the combination of claim 1(c) and claim 13, which is similar to claim 6.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquires

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LVN
Patent Examiner
July 7, 2006

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